DOCUMENT RESUME

ED 199 607 CG 015 028

AUTHOR Mitchell, Terence R.; Kalb, Laura S.
TITLE Effects of Outcome Knowledge and Content on Supervisors' Judgments.
PUB DATE Sep 80
NOTE 12p.; Paper presented at the Annual Convention of the American Psychological Association (88th, Montreal, Quebec, Canada, September 1-5, 1980).

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *Attribution Theory; *Evaluation Criteria; Expectation; Feedback; Individual Power; *Locus of Control; Nurses; *Performance Factors; Predictor Variables; Probability; *Responsibility; Supervisors; *Supervisory Methods

ABSTRACT

Past research has suggested that supervisors, when evaluating the poor performance of a subordinate, are influenced by the outcome of the performance. Nurses (N=55) in advanced training assumed the role of a supervisor of a nurse described as having performed poorly. Half of the subjects read an incident without an outcome and half read an incident with either a positive or negative outcome. Questions following the incident description assessed the perceived probability of subsequent outcome, the responsibility of the nurse involved, and attributions. Results indicated that outcome knowledge and content affected probability, responsibility, and attribution judgments. Subjects presented with outcome knowledge rated the outcome as more likely to occur again, saw the subordinate as more responsible for the behavior, and made more internal attributions for the behavior than those who had no outcome knowledge. These effects were more pronounced when the outcome was negative than when it was positive. (Author/NRB)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED199607

Effects of outcome knowledge and content on supervisors' judgments

Terence R. Mitchell
Department of Psychology NI-25
University of Washington
Seattle, Washington 98195

Laura S. Kalb
Department of Psychology
University of Washington

CG 015028

U S DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY
Terence R. Mitchell
TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

Effects of outcome knowledge and content

on supervisor's judgments

It is the purpose of this paper to show that supervisors, when evaluating the poor performance of a subordinate, are influenced by the outcome of the poor performance. Both the knowledge and the content of the outcome should influence the supervisors' judgments of (1) how probable the outcome was seen to be, (2) how responsible the subordinate was for the poor performance, and (3) the degree of internality of the causal attribution.

The background literature that generated these hypotheses came from a variety of sources. First, a number of studies (e.g., Arkkelin, Oakley & Mynatt, 1979) have shown that the responsibility for an action is judged as higher when the outcome is known. This effect is especially true if the outcome is negative. Second, Mitchell and Wood (in press) have shown that severe or negative outcomes are more likely to lead to internal attributions than neutral outcomes. The explanations for these two effects have as yet not been clearly understood. One possible explanation comes from the work of Slovic and Fischoff (1977). These authors have demonstrated that when someone knows an outcome has occurred, then the hindsight probability estimate (e.g., what did you think the probability was that this outcome would occur?) is higher than the foresight probability estimate (given without knowledge of the outcome). They have also shown that outcome knowledge increases the judged probability of the outcome occurring agin. Thus, one possible explanation for the effects of outcomes on judgments of responsibility and causal

attributions is that supervisors believe that the outcome was obvious, and, therefore, the subordinate is responsible for the action and is its cause.

Therefore, we propose that knowledge of the outcome of a subordinate's poor performance will: (1) increase a supervisor's estimates of the future probability of the same outcome occurring, (2) cause the supervisor to see the subordinate as more responsible for the behavior, and (3) result in more internal attributions for the behavior. These effects should be stronger when the outcome is negative than when it is positive.

Method

First, we gathered information about poor performance from the Directors of Nursing of seven hospitals in the Seattle area. Of the 260 supervisors contacted, 17 were randomly selected for extensive interviews, in which we gathered typical incidents of poor nursing performance.

Second, we presented 55 nurses involved in advanced training with an incidence of poor performance; e.g., the incorrect dosage of a drug (Inderol) administered to a heart patient. The nurses assumed the role of the supervisor of the nurse described as having performed poorly. Half received an incident with no outcome and half read an incident with one additional sentence describing the outcome (either positive--the patient gets better, or negative--the patient shows signs of cardiac arrest).

We used a 2 x 2 design with two levels of outcome knowledge (outcome present/outcome absent), and two levels of affective content (positive/negative) of the outcome. There were four questionnaires, one for each condition, and the 55 subjects were randomly assigned to conditions.

Measures. Six questions followed the incident description. Two questions assessed the perceived probability of subsequent outcomes (#1, 6), two assessed the responsibility of the nurse (#2, 3), and two assessed attributions (#4, 5). Table 1 presents an abbreviated form of the questions for the no outcome, positive condition. The precise wording of the questions varied slightly across conditions to ensure the logical plausibility of the questions. Some of these variations are presented in parentheses with the questions in Table 1. Item 1 used a 0 to 100 probability scale; items 2 and 3 had a ten-point responsible/not responsible scale and items 4 and 5 used a seven-point extremely important/extremely unimportant scale. Item 6 was a simple percentage estimate.

Insert Table 1 about here

Analyses. Examination of Table 1 reveals that different sorts of analyses had to be performed for different questions. It was possible to make outcome/no outcome comparisons and to examine interaction effects for all six questions. However, the assessment of the main effects for affective outcome content was more complex. For the probability questions (#1, 6), a comparison between positive and negative

conditions was irrelevant, as it depended on subjects' previous experience with the drug, rather than on our manipulations.

For items 2 (responsible for behavior) and 4 and 5 (internal and external attributions), outcome content main effect comparisons were also inappropriate because the wording of the incident and of the questions was exactly the same in the positive/no outcome and negative/no outcome groups. Therefore, t-tests were computed comparing the positive and negative outcome groups in the outcome present condition only for these three items.

Finally, for item 3 (responsibility for outcome), it was possible to assess both outcome knowledge and outcome content main effects, as well as the interaction.

Results

Main effects for outcome knowledge and interactions

Probability estimates. First, we proposed that knowledge of an outcome will increase people's perceptions of the inevitability of an outcome. Questions 1 (probability of outcome) and 6 (percentage estimate) address this question. Analyses of variance (2 x 2) showed a main effect for outcome knowledge for question 1 ($F(1,51) = 5.95$, $p < .02$) and question 6 ($F(1,46) = 9.50$, $p < .01$). The mean probabilities were 62.69 (outcome present) and 51.86 (outcome absent), for question 1. For question 6, the mean percentage estimates were 57.95 (outcome present) and 42.13 (outcome absent).

The interactions for the two questions were also significant:

($F(1,51) = 4.83$, $p < .03$) for the probability question, and ($F(1,46) = 3.84$, $p < .06$) for the percentage question. These results indicate that outcome knowledge increases the perceived inevitability of the outcome whether it was positive or negative, and that this increase is greater when the outcome is negative than when it is positive.

Responsibility for the behavior. We also proposed that outcome knowledge would affect supervisors' judgments of how responsible the nurse was for her behavior (question 2). Since outcomes were seen as more inevitable in the outcome present condition, the supervisor should see the subordinate as more responsible for her actions. Analyses of variance for question 3 revealed a main effect for outcome knowledge ($F(1,51) = 5.46$, $p < .02$), outcome present $\bar{x} = 9.52$; outcome absent $\bar{x} = 8.92$). This indicates that the subordinate was seen as more responsible for the behavior when the outcome was present than when it was absent, regardless of the affective nature of the outcome. The interaction for this question was not significant.

Responsibility for the outcome. We predicted that outcome knowledge would have the same effects on the responsibility for the outcome question (#3) as on the behavioral responsibility question. The analyses showed there was a main effect for outcome knowledge ($F(1,51) = 5.62$, $p < .02$), but the direction of the means was opposite to that for the behavioral responsibility question: outcome present $\bar{x} = 5.38$; outcome absent $\bar{x} = 6.54$. A significant interaction clarified these results ($F(1,51) = 27.40$, $p < .01$). Outcome knowledge increased judged responsibility for a negative outcome, as predicted, but reduced it dramatically

for a positive outcome. These results suggest that following poor performance, a supervisor will strongly deny that a subordinate is responsible for a positive outcome, but blame him or her for a negative outcome.

Internal and external attributions. Finally, we hypothesized that if responsibility judgments were enhanced by outcome knowledge, the supervisor would also be likely to make more internal attributions (question 4), and fewer external attributions (question 5) in the outcome present condition than in the outcome absent condition. Analyses of variance showed a main effect for outcome knowledge ($F(1,51) = 7.80$, $p < .01$) for the internal attribution item (outcome present $\bar{x} = 5.97$; outcome absent $\bar{x} = 5.00$), but no significant interaction. More internal attributions were made when the outcome was present than when it was absent, regardless of content. There were no significant main effects or interactions for the external attribution item.

Main effects for affective outcome content

As we suggested earlier, it is logically plausible to make comparisons between positive and negative outcomes over all conditions for question 3, and for questions 2, 4 and 5 in the outcome present condition only.

A series of t-tests were used in the analyses of questions 2, 4 and 5. For question 2, a negative outcome caused the supervisor to see the subordinate as more responsible for the behavior than a positive outcome, ($t(26) = 1.38$, $p < .09$; negative outcome $\bar{x} = 9.72$; positive

outcome $\bar{x}$ = 9.32), a marginally significant effect. For question 4, a negative outcome caused the supervisor to make more internal attributions than a positive outcome ($t(26) = 1.42$, $p < .08$; negative outcome $\bar{x}$ = 6.18; positive outcome $\bar{x}$ = 5.75), also a marginally significant effect. There were no differences for the external attribution question.

Finally, a main effect for affective content on question 3 revealed that subordinates were seen as significantly more responsible for negative outcomes than for positive outcomes ($F(1,51) = 27.40$, $p < .01$; negative outcome $\bar{x}$ = 7.94; positive outcome $\bar{x}$ = 3.99). Thus, the effect for the affective content of the outcomes was weak but consistent and in the predicted directions.

Conclusions

The results clearly show that outcome knowledge and content affect probability, responsibility and attribution judgments in the suggested direction. From both a practical and theoretical perspective the findings suggest that one reason why subordinates are seen as the cause of poor performance is that outcome knowledge may lead to more internal attributions. These results fit very nicely into the recent attributional model of leadership presented by Green and Mitchell (1979), and suggest that when combined with the actor/observer bias the subordinate is clearly in a position to be judged as the cause of poor performance. One applied inference might be to emphasize in leadership training programs that leaders focus on subordinate behavior, not outcomes. After all, it is the behavior that needs to be changed.

References

Arkkelin, D., Oakley, T., & Mynatt, C. Effects of controllable versus uncontrollable factors on responsibility attributions: A single subject approach. Journal of Personality and Social Psychology, 1979, 37, 110-115.

Green, S. G., & Mitchell, T. R. Attributional processes of leaders in leader-member interactions. Organizational Behavior and Human Performance, 1979, 23, 429-458.

Mitchell, T. R., & Wood, R. E. Supervisor's responses to subordinate poor performance: A test of an attributional model. In press.

Slovic, P., & Fischoff, B. On the psychology of experimental surprises. Journal of Experimental Psychology, 1977, 3, 544-551.

Table 1

Predictions and Analyses for Each of the Questions

Question		Analyses	Effects Assessed
1	(If this happened again)What do you think the probability is(would be) that the patient will recover without any severe consequences of the drug overdose(show signs of cardiac arrest)?	1. Anova	1. Main effect for outcome knowledge 2. Interaction of outcome content and outcome knowledge
6	If over the course of a year you had this type of problem occur a number of times (e.g., 20 times with a number of different nurses and patients), what percentage of the patients do you think would continue to recover without any severe consequences of the drug overdose? (Shows signs of cardiac arrest.)		
2	How responsible is Nurse Randolph for the incorrect drug administration?	1. Anova	1. Main effect for outcome knowledge 2. Interaction of outcome content and outcome knowledge
4	How important do you feel Nurse Randolph's personal characteristics were as possible causes of her behaving the way she did?		
5	How important do you feel characteristics of the situation were as possible causes of Nurse Randolph behaving the way she did?	2. T-test	1. Comparison between positive/negative conditions in outcome present condition only
3	How responsible would(was) Nurse Randolph be for a successful recovery(the patient showing signs of cardiac arrest)?	1. Anova	1. Main effect for outcome knowledge 2. Interaction of outcome content and outcome knowledge 3. Main effect for outcome content